

RESEARCH SERIES ON THE RECIDIVISM OF  
FEDERAL GUIDELINE OFFENDERS

RELEASE I

**MEASURING RECIDIVISM:  
THE CRIMINAL HISTORY COMPUTATION  
OF THE FEDERAL SENTENCING GUIDELINES**

A COMPONENT OF THE  
FIFTEEN YEAR REPORT  
ON THE U.S. SENTENCING COMMISSION'S  
LEGISLATIVE MANDATE



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the most accurate predictive instrument. Recall also that the primary recidivism definition has been shown to be the more statistically error free measure of recidivism, minimizing prediction errors.<sup>28</sup>

The analysis indicates that criminal history points have a greater prediction power than do the CHCs. However, the difference in predictive power does not argue for the abandonment of the CHC axis of the sentencing table. Even though the prediction power difference between the two criminal history measures is significant, the CHC provides a simplicity and efficiency that argues for its continued use in the sentencing process. The absolute level difference of prediction power may have a statistically significant import, but the difference is, in fact, relatively small and justifies the practical significance of only a small handful of CHCs.

## **F. Recidivism and Offender Characteristics**

The sections below summarize the variation in recidivism rates based on offender characteristics. The tabular analyses show association between characteristics, but do not imply causation. The recidivism rate patterns observed are typical of those reported in most prior federal offender recidivism research,<sup>29</sup> and reveal associations potentially relevant to policy discussions concerning the guidelines' criminal history measures. Exhibits 9 through 13 cited in this section appear at the end of the report.

### **1. Gender**

Overall, women recidivate at a lower rate than men. Exhibit 9 depicts the percentage of male and female offenders who recidivate within two years of returning to the community. Of the males in the study sample, 24.3 percent recidivate, 75.7 percent do not. Of the females in the study sample, 13.7 percent recidivate, 86.3 percent do not. Again, the rates for males and females increase in the higher CHCs. The difference between male and female rates, however, is not constant. In CHC I through CHC IV, there is never greater than approximately a five percentage point difference between male and female rates. However, in CHC V and CHC VI, the difference between the rates jumps to approximately 15 percentage points.

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<sup>28</sup>Errors in recidivism prediction occur when a model predicts recidivism for an offender and in fact the offender does not recidivate (a Type I error, denoted as  $\alpha$ ), or when a model does not predict recidivism for an offender and in fact the offender does recidivate (a Type II error, denoted as  $\beta$ ). The advantages of the primary recidivism measure in minimizing Type I and Type II errors is discussed in a recidivism project companion report, "Background and Methodology of the U.S. Sentencing Commission's 2003 Recidivism Study."

<sup>29</sup>Harer 1994.

## **2. Age at Sentence**

Recidivism rates decline relatively consistently as age increases. Generally, the younger the offender, the more likely the offender recidivates. Exhibit 9 illustrates the age recidivism trend of the study sample. Among all offenders under age 21, the recidivism rate is 35.5 percent, while offenders over age 50 have a recidivism rate of 9.5 percent.

## **3. Race and Ethnicity**

Exhibit 9 illustrates that the race of the offender is associated with recidivism rates. Overall, Black offenders are more likely to recidivate (32.8%) than are Hispanic offenders (24.3%). White offenders are the least likely to recidivate (16.0%).

## **4. Employment Status**

Exhibit 10 shows that those with stable employment in the year prior to their instant offense are less likely to recidivate (19.6%) than are those who are unemployed (32.4%). The difference between the employed and unemployed recidivating declines in the higher CHCs, until offenders in CHC VI have virtually the same recidivism rate regardless of their employment status in the year prior to their instant offense.

## **5. Educational Attainment**

Exhibit 10 shows recidivism rates for offenders with different educational backgrounds. Overall, offenders with less than a high school education are most likely to recidivate (31.4%), followed by offenders with a high school education (19.3%), offenders with some college education (18.0%), and offenders with college degrees (8.8%). One exception is seen in CHC V where recidivism rates for offenders with a college education (73.3%) are higher than rates for offenders with less than a high school education (50.6%).

## **6. Marital Status**

Offenders who have never been married are most likely to recidivate (32.3%), as shown in Exhibit 10. Those who are married are slightly less likely to recidivate (13.8%) than are those who are divorced (19.5%).

## **7. Illicit Drug Use**

Exhibit 10 demonstrates a relationship between illicit drug use and recidivism. Overall, offenders using illicit drugs within one year prior to their instant offense have a higher recidivism rate (31.0%) than those not using illicit drugs (17.4%). This finding does not hold for CHC V offenders.

## **8. Guideline Instant Offense Level**

There is no apparent relationship between the sentencing guideline final offense level and recidivism risk. Exhibit 11 illustrates the percentages of offenders who recidivated within each offense level grouping. The recidivism rates are essentially the same, regardless of the offender's offense severity under the sentencing table. This relationship is consistent with the principle that the guideline offense level is not designed to predict recidivism, while the criminal history computation is designed to predict recidivism.

## **9. Guideline Applied for Instant Offense**

Exhibit 11 relates the recidivism rate and the guideline driving the sentence for the instant offense. Overall, offenders sentenced under the guidelines for robbery, §2B3.1 (41.2%) and firearms, §2K2.1 (42.3%) are most likely to recidivate. Offenders sentenced in fiscal year 1992 under fraud, §2F1.1 (16.9%), larceny, §2B1.1 (19.1%), and drug trafficking, §2D1.1 (21.2%) are overall the least likely to recidivate. Noteworthy data are seen in the patterns across the CHCs. Even though fraud and larceny offenders had lower recidivism rates in CHC I and II, the recidivism rates for these offenses exceed 50 percent in CHC V and CHC VI and appear sometimes comparable to the recidivism rates for robbery and firearms at the higher CHCs. Additionally, except in CHC I, drug trafficking offenders have the lowest, or second lowest, rate of recidivism across the CHCs.

## **10. Sentence Type: Probation, Alternatives, or Prison**

Exhibit 12 reports that, overall, offenders are most likely to recidivate (25.6%) when their sentence is a straight prison sentence. Recall that straight prison sentences fall within Zone D of the sentencing table,<sup>30</sup> with greater instant offense seriousness implicit. Of those offenders sentenced to a probation only sentence, 15.1 percent recidivate. Offenders serving a sentence of probation combined with confinement alternatives have a similar rate of 16.7 percent.

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<sup>30</sup>Zone D in the sentencing table of Chapter Five Part A requires that, absent departure, the minimum sentence term be satisfied with a sentence of imprisonment (§5C1.1(f)). In contrast, sentence terms in Zones B and C can be satisfied in part with alternative confinement, and sentence terms in Zone A do not require confinement nor imprisonment. Within any given CHC, the sentence terms of guideline ranges in Zone D have the greatest length in the sentencing table, ranging from offense levels 13 and higher for CHC I, to offense levels 6 and higher for CHC V.

### **11. Length of Sentence Imposed for Instant Offense**

Exhibit 12 displays the relationship between the length of the instant offense prison sentence and recidivism rates. The overall trend shows that recidivism has an “inverted U” shape. Recidivism is comparatively low for the lowest sentences (less than six months, or probation), peaks with mid-length sentences (lengths of roughly six months to two years) and then drops for the longest sentences.<sup>31</sup> Among the individual CHCs, however, no discernable trend emerges, although “inverted U” shapes are recognizable in CHC III, CHC V, and CHC VI. Note that for some CHCs, offenders spending “0” time in prison (i.e., probation only or probation with alternative confinement alternatives) have comparatively high recidivism rates. In fact, in CHC I, CHC III, CHC V, and CHC VI, the recidivism rates for “0” prison lengths are often higher than those of offenders who received a minimum prison sentence (one to six months).

### **12. Departure Status**

Panel three of Exhibit 12 displays recidivism rates of offenders by departure status. Overall, offenders receiving a substantial assistance departure have the lowest recidivism rate (17.9%). Recidivism rates for sentences within the guideline range and downward departures sentences are similar (23.3% and 23.0%, respectively). Looking at differences among the CHCs themselves, only the lower CHCs (I, II, III, and IV) have the lowest recidivism rates in substantial assistance departure cases. Downward departure offenders only in the higher CHCs (III, IV, V, and VI) have recidivism rates below the rates for within guideline offenders.

### **13. Type of Recidivating Event**

Exhibit 13 uses a different format from the preceding exhibits. The exhibit reports the distribution of first recidivating events in each CHC. The exhibit addresses the kinds of events that constitute recidivism, and provides this information for all offenders and for each separate CHC.

Overall, probation revocations account for the highest percentage (20.8%) of recidivating events. Across all recidivating offenders, one in five committed a probation violation. However, this finding is in part an artifact of the guideline sentencing structure. There are greater numbers of offenders in the lower CHCs, and those in the lower CHCs are more likely to receive a non-prison sentence, and thus be under probation supervision. It is not surprising, therefore, that only for CHC I, CHC II, and CHC III are probation revocations the most common recidivating events.

For similar reasons, supervision revocations, which are overall the second most frequent recidivating offenses, are the *most* frequent recidivating events for CHC IV, CHC V, and CHC VI.

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<sup>31</sup>Recall the discussion in section A, noting that due to their typically longer prison confinements, fewer of the offenders sampled from the higher CHCs had been released and included in the presented statistics. Follow-up recidivism studies that include more offenders with longer sentences may uncover relationships that differ from those observed at this time.

Those in the higher CHCs are more likely to receive a prison sentence, and thus be under supervised release when returning to the community.

Among the non-supervision re-offending events, almost one in every ten events is a violent crime, and their frequency is comparable across the CHCs. Drug trafficking crimes comprise almost nine percent (8.8%) of recidivating events, with their likelihood decreasing from 11.2 percent in CHC I to 4.1 percent in CHC VI. In contrast, larceny rates increase from a low of 6.9 percent in CHC I to a high of 14.9 percent in CHC VI.

## G. Conclusion

Testing of the guidelines' criminal history measure's predictive power shows that the aggregate Chapter Four provisions are performing as intended and designed. Recidivism rates rise as criminal history points increase and as CHCs increase. The empirical evidence shows that criminal history as a risk measurement tool has statistically significant power in distinguishing between recidivists and non-recidivists. Not surprisingly, criminal history points predict better than the CHC. This is because points comprise the raw criminal history calculation. The CHC measure sums the number of points into aggregate categories. For example CHC III contains offenders with four, five, or six criminal history points. It is logical that the points themselves are more predictive than the summed measure. However, the statistically significant difference in prediction between the points and sum measures may not have policy significance. The practical and efficiency advantages of having a small set of CHCs in the sentencing table overwhelm the small absolute increase in predictive power.

The findings in this analysis suggest a number of additional topics that will be addressed in the companion reports from the recidivism project. One example focuses on offenders with minimal prior criminal history. Not only do they have substantially lower recidivism rates, but they are considered less culpable under the guidelines. Possible sentencing reductions for "first offenders" are supported by the recidivism data and would recognize their lower re-offending rates. At the other end of the scale, this analysis finds no statistical difference between the recidivism rates of offenders in CHC V and CHC VI. One conclusion is that these two categories could be combined with no loss of predictive power. Even with equal recidivism rates, however, practitioners and policy makers may identify a culpability difference between offenders in CHC V and CHC VI. Such a culpability distinction might argue for maintaining these two different CHCs.

The recidivism rates associated with offender or offense characteristics also highlight important relationships. One such relationship concerns offense seriousness and recidivism. There is no correlation between recidivism and guidelines' offense level. Whether an offender has a low or high guideline offense level, recidivism rates are similar. While surprising at first glance, this finding should be expected. The guidelines' offense level is not intended nor designed to predict recidivism. Other sets of interesting relationships are those between prior illicit drug use and recidivism, or offender education level and recidivism. If, as the data indicate, abstinence from illicit drug use, or high school completion, reduces recidivism rates, then rehabilitation programs

Exhibit 11  
**Primary Definition Recidivism Rates<sup>1</sup> for Instant Offense Characteristics, by Criminal History Category**  
**Instant Offense Level and Primary Sentencing Guidelines**  
 Recidivism Study 2003

**CRIMINAL HISTORY CATEGORIES**

<b>Offense Characteristics</b>	<b>Category I</b>		<b>Category II</b>		<b>Category III</b>		<b>Category IV</b>		<b>Category V</b>		<b>Category VI</b>	
	Percent	Recidivating	Percent	Recidivating	Percent	Recidivating	Percent	Recidivating	Percent	Recidivating	Percent	Recidivating
<b>TOTAL<sup>2</sup></b>	<b>24,335</b>	<b>15,429</b>	<b>2,857</b>	<b>2,844</b>	<b>1,359</b>	<b>779</b>	<b>1,067</b>					
<b>Instant Offense Level</b>												
01 – 08	22.5	15.1	29.8	37.6	44.1	54.6	62.4					
09 – 10	22.5	9.6	18.3	45.4	51.0	54.4	60.6					
11 – 12	21.7	8.7	38.0	39.1	50.8	52.2	52.0					
13 – 16	22.2	14.8	23.5	37.4	39.5	50.8	58.1					
17 – 21	27.3	17.5	25.7	37.5	44.1	59.6	59.6					
22 – 25	22.8	13.3	22.5	33.3	40.3	34.9	61.6					
26 – 30	20.7	18.9	19.7	19.2	39.5	43.8	41.4					
31 – 43	17.5	11.1	12.2	22.4	30.6	46.2	39.9					

**Primary Sentencing Guideline**

\$2D1.1 ( <i>drug traf.</i> )	21.2	16.7	19.8	26.1	37.7	48.1	43.8
\$2F1.1 ( <i>fraud</i> )	16.9	9.3	26.3	33.8	42.3	51.2	53.4
\$2B1.1 ( <i>larceny</i> )	19.1	11.6	37.9	56.6	43.0	57.4	58.0
\$2K2.1 ( <i>firearms</i> )	42.3	23.7	26.8	44.1	53.0	54.2	63.4
\$2B3.1 ( <i>robbery</i> )	41.2	33.7	31.4	38.8	57.1	45.2	70.3
All Other Guidelines	20.5	12.6	23.6	34.0	44.3	53.7	55.1

<sup>1</sup> Primary recidivism definition based on offender's re-arrest, including supervised release/probation violations, re-arrest, or re-conviction.

<sup>2</sup> Number of offenders with a 24 month period at risk of recidivating following either initiation of probation (for offenders receiving probation-only sentences) or release from confinement (for those offenders receiving confinement sentences).

<sup>3</sup> The sentence imposed for the offender's instant offense, presented in months.

SOURCE: U.S. Sentencing Commission, FY1992 Recidivism Sample (U.S. Citizens), 2003, weighted data.